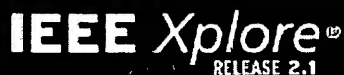


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S1	5	((("5678016") or ("5732005") or ("5764959") or ("6138135") or ("6282634"))).PN.	US-PGPUB; USPAT	OR	OFF	2007/01/03 11:36
S2	5	("5341320" "5481489" "5631859" "5732005" "6049865").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/01/03 11:38
S3	12	("6138135").URPN.	USPAT	OR	ON	2007/01/03 11:39
S4	15	("4135249" "4403284" "4476537" "4620292" "4748580" "4785412" "4805128" "4901233" "5019961" "5027272" "5140687" "5197005" "5274679" "5317526" "5341506").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/01/03 11:39
S5	5	("5732005").URPN.	USPAT	OR	ON	2007/01/03 11:40
S6	157	703/26.ccor.	US-PGPUB; USPAT	OR	ON	2007/01/03 11:40
S7	101	708/495.ccor.	US-PGPUB; USPAT	OR	ON	2007/01/03 11:40
S8	26957	floating adj point	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 12:51
S9	10091	S8 with (hardware unit)	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 12:58
S10	2837	S9 and precision	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 12:58
S11	635	S10 and emulat\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 12:59
S12	191	S11 and exponent	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 12:59
S13	73	S12 and mantissa	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 13:00
S14	65	S13 and integer	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 13:00
S15	61	S14 and @ad<="20031202"	US-PGPUB; USPAT; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2007/01/03 13:01
S16	4	("3930232" "4041292" "4722068" "5341321").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/01/03 13:03
S17	22	("5631859").URPN.	USPAT	OR	ON	2007/01/03 13:04

		Results
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<u>#3</u>	((floating point unit)<or>(floating point hardware) <and>precision)<and>exponent<and>mantissa<and>integer) <and> (pyr >= 1951 <and> pyr <= 2003)	50
<u>#4</u>	((floating point unit)<or>(floating point hardware) <and>precision) <and>exponent<and>mantissa<and>integer<and>emulat*) <and> (pyr >= 1951 <and> pyr <= 2003)	11

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arcade consoles to workstation applications. **Floating-point** (FP) computation is the heart of 3D geometry. III processor was problematic because of its **emulation** of 4-wide SIMD-FP. Using packed instructions of the new extension was accelerating single **precision floating-point** computation, which involved the developer.intel.com/technology/itj/q21999/articles/...pdf/simd_ext.pdf

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[Realization of PRAMs: Processor Design - Jörg Keller, Wolfgang J. Paul.. \(1994\) \(Correct\) \(15 citations\)](#)

for a prototype VLSI implementation with a **floating point** unit. 1 Introduction Parallel programming set and provides in hardware mechanisms for the **emulation** of shared memory: random hashing to avoid hot need only one opcode format and that only single-**precision floating-point** instructions are supported. We www.wjp.cs.uni-sb.de/projects/sbpram/papers/wdag94final.ps.gz

[A pragmatic approach to compilation of Erlang - Johansson, Jonsson, Lindgren \(1997\) \(Correct\) \(3 citations\)](#)

be either fixed **precision integers** (fixnums)**floating point** numbers, or arbitrary **precision integers** which use different execution models: bytecode **emulation** (JAM)and compilation to machine code via C expression in Erlang can be either fixed **precision integers** (fixnums)**floating point** numbers, or vodka.lfci.org/erlang/pacomp_Erlang.ps

[Numerical Computation Guide - Microsystems \(1996\) \(Correct\) \(2 citations\)](#)

.1 **Floating-Point** Environment .
 192.18.99.138/802-5692/802-5692.pdf

[Detecting and Exploiting Narrow Bitwidth Computations - Budiu, Goldstein \(1999\) \(Correct\) \(2 citations\)](#)

module library can be used to build fixed- or **floating-point** operations from these primitives. A DIL value the bigger the emulated circuit, the longer the **emulation** of a clock cycle takes. Reducing the number and All data values manipulated by DIL are arbitrary **precision integer** values. A module library can be used to www.cs.cmu.edu/~mihaib/research/socs2.ps.gz

[Injection Of Faults In Complex Computers - Henrique Madeira Joo \(1995\) \(Correct\) \(1 citation\)](#)

user defined events such as load, store, or **floating point** instructions, while the latter enable the fault injection techniques, also known as fault **emulation** (e.g.Segall 88, Chillarege 89, Han 93, Young degrees) these kind of features are the HP **Precision** architecture, the PowerPC family, the Pentium, dsq.dei.uc.pt/Papers/wetds95.ps.Z

[Automatic Evaluation of the Accuracy of Fixed-point Algorithms - Menard, Sentieys \(2002\) \(Correct\)](#)

for the automatic implementation of **floating-point** algorithms in fixed-point architectures. In with the increase of execution time due to the **emulation** of the fixed-point mechanisms, leads to long word-length of the data as long as the desired **precision** constraints are respected. The most common used www.sigda.org/Archives/ProceedingArchives/Date/Date2002/papers/2002/date02/htmlfiles/sun_sgi/...pdf/files/05e_4.pdf

[Mapping of Speech Front-End Signal Processing to High Performance .. - Moretto \(1995\) \(Correct\)](#)

Standard Mips Risc Microprocessor With No-**Floating Point** Unit And An Additional Fixed Point Vector and IEEE single **precision floating-point emulation**. The majority of the routines are written in through linear interpolation, and IEEE single **precision floating-point emulation**. The majority of the www.ICSI.Berkeley.EDU/ftp/global/pub/techreports/1995/tr-95-063.ps.gz

[32-bit Logarithmic ALU for Handel C 2.1 and.. - Kadlec, Hermanek, .. \(Correct\)](#)

UK. Abstract Implementation of IEEE **floating point** in FPGA (Field Programmable Gate Array) is } Corresponding CODE in Matlab, using HSLA **emulation** library: for k=1:8, la2(lsq2(lm2(are arithmetic (ADD, SUB, MUL, DIV and SQRT)with **precision** equal to or better than: the standard IEEE www.celoxica.com/products/technical_papers/.../products/technical_papers/academic_papers/Lns2CelRev2.pdf

[Numerical Error Minimizing Floating-Point to Fixed-Point ANSI.. - Aamodt, Chow \(1999\) \(Correct\)](#)

Numerical Error Minimizing **Floating-Point** to Fixed-Point ANSI C Compilation Tor Aamodt

large processor die areas, or slow software **emulation**. In many embedded applications the resulting to 1.1, 0.5, 1.0, and 2.1 extra bits of **precision** carried throughout the computations are shown
www.eecg.utoronto.ca/~aamodt/papers/MPDSP-minerr.pdf

Floating Point to Fixed Point Conversion of C Code - Cilio, Corporaal (1999) (Correct)

Floating Point to Fixed Point Conversion of C Code Andrea G.

fixed-point arithmetic instead of **floating-point emulation** trades off computation accuracy for execution To avoid overflows and reduce the loss of **precision** he must scale the **integer** words. Determining
cardit.et.tudelft.nl/MOVE/papers/Cilio99a.ps.gz

Fixed-point arithmetic for ASIP code generation - Cilio, Karkowski, Corporaal (1998) (Correct)

impact on the accuracy when compared to a **floating-point** version of the same program. In the same time times faster than its equivalent **floating-point emulation** on an **integer** datapath. 1 Introduction In To avoid overflows and reduce the loss of **precision** he must scale the **integer** words. Determining
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Why 64 Bit Computers in the Control - Room By (Correct)

prices, 16 GB would cost \$640K. 64 Bit Data **Floating point** data types have been 64 bits or more for many 32 bit systems typically provide software **emulation** for formats with greater than 32 bits, format provides 64 bit and 128 bit formats for **precision** and accuracy. 32 bit systems typically provide
www.digital.com/info/LI01PK/LI01PKP8.PS

A Software-Oriented Floating-Point Format for Enhancing.. - Yamada, Connors, Hwu (1998) (Correct)

A Software-Oriented **Floating-Point** Format for Enhancing Automotive Control

for automotive control programs that use software **emulation** rather than hardware resources. Since the the compiler to customize the format's range and **precision** for automotive control systems. At the same
ftp.crhc.uiuc.edu/pub/IMPACT/conference/case-98-float.ps

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 ... performance of, for example, **Integer** processing ... is wider than the single- **precision**
mantissa width, and ... Floating-point transform vector **instruction** FTRV uses a ...
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[SH4 RISC Microprocessor for Multimedia - group of 3 »](#)

F Arakawa, O Nishii, K Uchiyama, N Nakagawa - HOT Chips IX Symposium Record, Aug, 1997 - [mobile.ss.titech.ac.jp](#)
 ... ID: **Instruction** Decode, RR: Register Read, WB: Register Write Back ... Single : 24b x
 24b + 73b **Integer**: 32b x 32b ... Feedback Path for Double **Precision Emulation** (65b ...
 Cited by 11 - [Related Articles](#) - [View as HTML](#) - [Web Search](#)

[A digital signal processor with IEEE floating-point arithmetic - group of 4 »](#)

GRL Sohie, KL Kloker, M Inc, TX Austin - Micro, IEEE, 1988 - [ieeexplore.ieee.org](#)
 ... memory ports, and • an on-chip circuit **emulation** port. ... operation latencies of two
 to four **Instruction** cycles, which ... The **precision** of the 96002's 44-bit SEP ...
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R Schlafly - US Patent 5,471,612, 1995 - Google Patents
 ... Page 8. **EXPONENT MANTISSA** [ST ST(1) ST(2) ST(3) ST(4) ST(5) ST(6) ST(7) **EXPONENT**
 1**MANTISSA** 50 CONTROL REGISTER STATUS REGISTER **INSTRUCTION** POINTER DATA POINTER ...
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T Aamodt - 2001 - [eecg.toronto.edu](#)
 ... in evaluating improvements in execution-time and long **Instruction** ... native fixed-point
 execution to floating-point **emulation**. 8 ... 14 using double-precision floating ...
 Cited by 6 - [Related Articles](#) - [View as HTML](#) - [Web Search](#) - [Library Search](#)

[Methods for compiling formulas stored in an electronic spreadsheet system - group of 2 »](#)

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 64 63 CONTROL REGISTER STATUS REGISTER **INSTRUCTION** POINTER DATA POINTER FIG. 3B ...
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[... a second format type if a second type instruction consumes data produced by a first type instruction - group of 3 »](#)

SG Meier, N Juffa, MD Achenbach, FD Weber... - US Patent 6,105,129, 2000 - Google Patents
 ... same as the corresponding significand in extended **precision**. ... PRODUCED BY A FIRST
 TYPE **INSTRUCTION** BACKGROUND OF ... For example, **integer** and floating point data ...
 Cited by 5 - [Related Articles](#) - [Web Search](#)

[Design and DSP Implementation of Fixed-Point Systems - group of 9 »](#)

M Coors, H Keding, O Luthje, H Meyr - EURASIP Journal on Applied Signal Processing, 2002 - [hindawi.com](#)
 ... a fixed word length and a fixed **exponent** to every ... information on the range and on
 the **precision** of the ... or **integer** word length for c. The correlation between fwl ...
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... product width is wider than the single-precision mantissa width, and the ... On the other hand, the Integer multiply-add execution ... The FMAC instruction hardware

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50 CONTROL REGISTER STATUS REGISTER INSTRUCTION POINTER DATA POINTER ...

Cited by 10 - [Related Articles](#) - [Web Search](#)[A floating point unit for the 68040](#)S McCloud, D Anderson, C DeWitt, C Hinds, YW Ho, D ... - Computer Design: VLSI in Computers and Processors, 1990. ..., 1990 - [ieeexplore.ieee.org](#)

... controls data and instruction movement, Integer Unit (IU ... instruction normally, passing both instruction and data to ... is converted to extended precision and tagged ...

[Web Search](#)[Method and data processing system for arbitrary precision on numbers - group of 2 »](#)

WC Anderson - US Patent 5,619,711, 1997 - Google Patents

... when emulating certain other arithmetic instructions in a ... special opera- tors for floating point math emulation. ... system number to maintain 30 full precision. ...

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R Schlafly - US Patent 5,633,998, 1997 - Google Patents

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64 63 CONTROL REGISTER STATUS REGISTER INSTRUCTION POINTER DATA POINTER FIG. 3B ...

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US Patent 6,058,465, 2000 - Google Patents

... performed to complete the instruction. One embodiment of the invention supports 8-bit, 9-bit, 16-bit, and 32-bit data element sizes of Integer type for all ...

Cited by 17 - [Related Articles](#) - [Web Search](#)[A low-power accelerator for the SPHINX 3 speech recognition system - group of 6 »](#)B Mathew, Z Fang - Proceedings of the international conference on Compilers, ..., 2003 - [portal.acm.org](#)

... be provided with 32 bit Integer arithmetic. ... an empirical search for the precision requirements by ... a custom software floating point emulation library for ...

Cited by 20 - [Related Articles](#) - [Web Search](#)[Method and apparatus for obtaining a scalar value directly from a vector register - group of 5 »](#)

YCC Liao, PA Sandon, H Cheng, TJ Van Hook - US Patent 6,571,328, 2003 - Google Patents

... _ format used by double precision instructions ... VGS for Windows; Controversial Emulator of Sony ... Dreamcast Instruction Manual, Sega Enterprises, Ltd., ©1998 ...

Cited by 2 - [Related Articles](#) - [Web Search](#)[\[book\] See MIPS Run - group of 3 »](#)D Sweetman - 1999 - [books.google.com](#)

... 27 2.5.1 Integer Data Types 27 vii Page 8. ... 172 7.13 Floating-Point Emulation 172

Page 11. Chapter 8 Complete Guide to the MIPS Instruction Set 175 ...

Cited by 30 - [Related Articles](#) - [Web Search](#) - [Library Search](#)[Single-instruction-multiple-data processing using multiple banks of vector registers - group of 3 »](#)

SP Song, MA Mohamed, H Park, RSD Wong... - US Patent 5,838,984, 1998 - Google Patents

... [11] Patent Number: [45] Date of Patent: [54] **SINGLE-INSTRUCTION-MULTIPLE-DATA****PROCESSING USING MULTIPLE BANKS OF VECTOR REGISTERS** ... v **32-BIT INSTRUCTION CACHE** ...Cited by 10 - [Related Articles](#) - [Web Search](#)[... a second format type if a second type instruction consumes data produced by a first type instruction - group of 3 »](#)

SG Meier, N Juffa, MD Achenbach, FD Weber... - US Patent 6,105,129, 2000 - Google Patents

... same as the corresponding significand in extended precision. ... PRODUCED BY A FIRST

TYPE INSTRUCTION BACKGROUND OF ... For example, Integer and floating point data ...
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[Arithmetic for relative accuracy](#) - group of 4 »

R vanDrunen, L Spaanenburg, P Lucassen, JAG ... - Computer Arithmetic, 1995., Proceedings of the 12th ..., 1995 - [ieeexplore.ieee.org](#)
 ... on a trade-off in parallelism between instructions (MISD) and ... This reduced—precision
 arithmetic unit must be ... A and B into an Integer (characteristic value ...
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[On computing power](#) - group of 8 »

JE Vuillemin - Programming Languages and System Architectures, 1994 - [citeseer.csail.mit.edu](#)
 ... centered at E's maximum. Here, $r m i r j$ is a tabulated 8b Integer approximation
 of the distance $\delta i v i m 2 \times j v j m 2 a P$ The peak energy: ...
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SA Tretter - 1995 - [books.google.com](#)
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T NORDSTROM, B SVENSSON - Journal of Parallel and Distributed Computing, 1992 - [sm.luth.se](#)
 ... that characterizes massively parallel computers can be SIMD (Single Instruction
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